

A computer based classification of caps in $PG(5, 2)$

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Abstract

In this paper we present the complete classification of caps in $PG(5, 2)$. These results have been obtained using a computer based exhaustive search that exploits projective equivalence.

1 Introduction

In the projective space $PG(r, q)$ over the Galois Field $GF(q)$, a n -cap is a set of n points no 3 of which are collinear. A n -cap is called *complete* if it is not contained in a $(n + 1)$ -cap. For a detailed description of the most important properties of these geometric structures, we refer the reader to [4]. In the last decades the problem of determining the spectrum of the sizes of complete caps has been the subject of a lot of researches. For a survey see [1]. In this work we search for the classification of complete and incomplete caps in $PG(5, 2)$, using an exhaustive search algorithm. In Section 2 the algorithm utilized is illustrated; in Section 3 the complete list of non equivalent complete and incomplete caps is presented.

2 The searching algorithm

In this section the algorithm utilized is presented. Our goal is to obtain the classification of complete and incomplete caps in $PG(5, 2)$. It is not restrictive to suppose that a cap in $PG(5, 2)$ contains this six points:

$$\mathcal{R} = \{(1 : 0 : 0 : 0 : 0 : 0); (0 : 1 : 0 : 0 : 0 : 0); (0 : 0 : 1 : 0 : 0 : 0); \\ (0 : 0 : 0 : 1 : 0 : 0); (0 : 0 : 0 : 0 : 1 : 0); (0 : 0 : 0 : 0 : 0 : 1)\}.$$

Then we define the set $Cand$ of all the points lying no 2-secant of \mathcal{R} . We introduce in $Cand$ the following equivalence relationship:

$$P \sim Q \iff \mathcal{C} \cup \{P\} \cong \mathcal{C} \cup \{Q\},$$

where \cong means that the two sets are projectively equivalent. This relationship spreads the candidates in equivalent classes $\mathcal{C}_1, \dots, \mathcal{C}_k$.

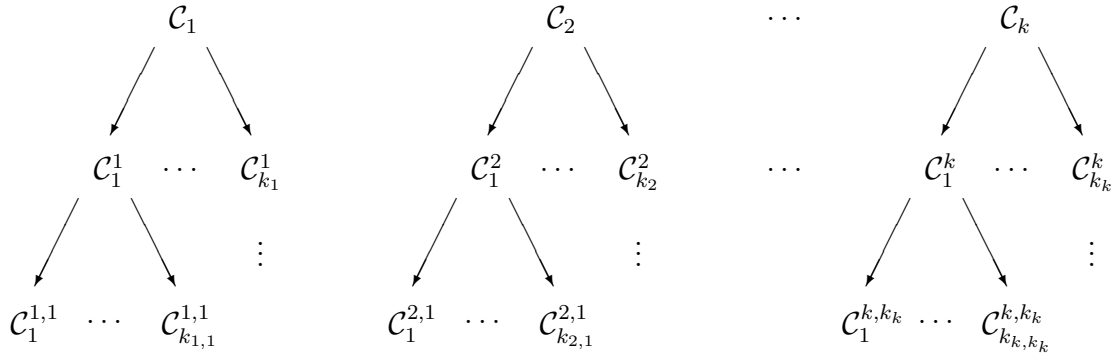
The choice of the next point to add to the building cap can be made only among the representatives of the equivalent classes, in fact two caps one containing $\mathcal{C} \cup \{P\}$ and the other one $\mathcal{C} \cup \{Q\}$, with P and Q in $\mathcal{C}_{\bar{i}}$, are equivalent by definition of orbit.

Suppose now that we have construct all the caps containing $\mathcal{C} \cup \{P_i\}$, with $i \leq \bar{i}$. Considering the caps containing $\mathcal{C} \cup \{P_j\}$ with $\bar{i} < j$, all the points of the classes \mathcal{C}_k with $k < \bar{i}$ can be avoided. In fact a cap containing $\mathcal{C} \cup \{P_j\} \cup \{\bar{P}_k\}$, with $\bar{P}_k \in \mathcal{C}_k$ and $k < \bar{i}$, is projectively equivalent to a cap containing $\mathcal{C} \cup \{P_k\} \cup \{P_j\}$, already studied.

When we add a new point to the cap, we can divide all the remaining candidates in equivalence classes, as above. Two points P and Q are in relationship with the j -th class \mathcal{C}_j , i.e. $P \sim_j Q$, if $\mathcal{C} \cup \{P_j\} \cup \{P\}$ and $\mathcal{C} \cup \{P_j\} \cup \{Q\}$ are projectively equivalent.

At the m -th step of the extension process if the cap $\mathcal{C} \cup \{P_{i_m}\} \cup \dots \cup \{P_{i_m}^{i_1 \dots i_{m-1}}\} \cup \{P\}$ is projectively equivalent to the cap $\mathcal{C} \cup \{P_{i_m}\} \cup \dots \cup \{P_{i_m}^{i_1 \dots i_{m-1}}\} \cup \{Q\}$ with $P_s^{i_1 \dots i_r} \in \mathcal{C}_s^{i_1 \dots i_r}$, then P and Q are in relationship ($P \sim_{i_1 \dots i_m} Q$) and they belong to the same class $\mathcal{C}_{m+1}^{i_1 \dots i_m}$.

Iterating the process we can build a tree similar to the following:



The tree is important to restrict the number of candidates in the extension process. Suppose that we have generated a n -cap containing the cap $\mathcal{C} \cup \{P_{i_1}\} \cup \{P_{i_2}^{i_1}\} \cup \dots \cup \{P_{i_m}^{i_1 \dots i_{m-1}}\} \cup \{P\}$, after having generated n -caps containing $\mathcal{C} \cup \{P_j\}$ with $j < i_1$, $\mathcal{C} \cup \{P_{i_1}\} \cup \{P_j^{i_1}\}$ with $j < i_2, \dots$, $\mathcal{C} \cup \{P_{i_1}\} \cup \{P_{i_2}^{i_1}\} \cup \dots \cup \{P_j^{i_1 \dots i_{m-1}}\}$ with $j < i_m$, with $P_s^{i_1 \dots i_r} \in \mathcal{C}_s^{i_1 \dots i_r}$. Then the

points belonging to $\mathcal{C}_1 \cup \dots \cup \mathcal{C}_{i_1-1} \cup \mathcal{C}_1^{i_1} \cup \dots \cup \mathcal{C}_{i_2-1}^{i_1} \cup \dots \cup \mathcal{C}_1^{i_1 \dots i_{m-1}} \cup \dots \cup \mathcal{C}_{i_m-1}^{i_1 \dots i_{m-1}}$ can be avoided, because a cap containing one of them is equivalent to one already found. For example a n -cap containing $\mathcal{C} \cup \{P_{i_1}\} \cup \dots \cup \{P_{i_m}^{i_1 \dots i_{m-1}}\} \cup \{P\} \cup \{Q\}$ with $Q \in \mathcal{C}_h$ for some $h < i_1$ is equivalent to a n -cap containing $\mathcal{C} \cup \{P_h\}$, which is already found.

3 Results

In this Section all non equivalent caps, complete and incomplete, in $PG(5, 2)$ are presented.

3.1 Non-equivalent caps \mathcal{K} in $PG(5, 2)$

This table shows the number and the type of the non equivalent examples of all the caps.

Table 1: Number and type of non equivalent examples

$ \mathcal{K} $	# COMPLETE CAPS	# INCOMPLETE CAPS	$ \mathcal{K} $	# COMPLETE CAPS	# INCOMPLETE CAPS
7	0	4	20	1	23
8	0	7	21	0	16
9	0	12	22	0	15
10	0	24	23	0	9
11	0	34	24	0	8
12	0	43	25	0	5
13	1	46	26	0	4
14	0	49	27	0	2
15	0	44	28	0	2
16	0	48	29	0	1
17	5	35	30	0	1
18	1	32	31	0	1
19	0	25	32	1	0

3.2 Description of the caps

In this section we describe each cap of size $k + 1$, with $7 \geq k \geq 31$, as union of a cap of size k and a point in $PG(5, 2)$. We start from these non equivalent examples of 7-incomplete caps.

CAP 1						
1	1	0	0	0	0	0
0	1	1	0	0	0	0
0	1	0	1	0	0	0
0	1	0	0	1	0	0
0	1	0	0	0	1	0
0	1	0	0	0	0	1

CAP 2						
1	1	0	0	0	0	0
0	0	1	0	0	0	0
0	0	0	1	0	0	0
0	0	0	0	1	0	0
1	0	0	0	0	1	0
1	0	0	0	0	0	1

CAP 3						
1	0	0	0	0	0	1
0	1	0	0	0	0	1
0	0	1	0	0	0	0
0	0	0	1	0	0	1
0	0	0	0	1	0	1
0	0	0	0	0	1	0

CAP 4						
1	0	0	0	0	0	1
0	1	0	0	0	0	1
0	0	1	0	0	0	1
0	0	0	1	0	0	0
0	0	0	0	1	0	1
0	0	0	0	0	1	1

We will call these caps $\mathcal{C}_7^1, \mathcal{C}_7^2, \mathcal{C}_7^3, \mathcal{C}_7^4$ respectively. They have stabilizer (\mathcal{O}) of size

Table 2: Cap \mathcal{K} with $|\mathcal{K}| = 7$

\mathcal{K}	STABILIZER
\mathcal{C}_7^1	$ \mathcal{O} = 5040$
\mathcal{C}_7^2	$ \mathcal{O} = 144$
\mathcal{C}_7^3	$ \mathcal{O} = 240$
\mathcal{C}_7^4	$ \mathcal{O} = 720$

In the following tables the symbol \mathcal{C}_i^j indicates the j -th cap of size i and $\overline{\mathcal{C}}_i^j$ means that the cap is complete. If it is possible to write a cap in two different ways, we choose that one with the lowest value of j .

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_8^1	$\mathcal{C}_7^2 \cup \{(1, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_8^2	$\mathcal{C}_7^3 \cup \{(0, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 144$
\mathcal{C}_8^3	$\mathcal{C}_7^2 \cup \{(1, 0, 0, 1, 0, 1)\}$	$ \mathcal{O} = 96$	\mathcal{C}_8^4	$\mathcal{C}_7^2 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 192$
\mathcal{C}_8^5	$\mathcal{C}_7^2 \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 1152$	\mathcal{C}_8^6	$\mathcal{C}_7^2 \cup \{(1, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 72$
\mathcal{C}_8^7	$\mathcal{C}_7^1 \cup \{(1, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 144$			

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_9^1	$\mathcal{C}_8^1 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_9^2	$\mathcal{C}_8^1 \cup \{(1, 0, 0, 1, 0, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_9^3	$\mathcal{C}_8^3 \cup \{(1, 1, 0, 0, 1, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_9^4	$\mathcal{C}_8^4 \cup \{(1, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_9^5	$\mathcal{C}_8^3 \cup \{(1, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_9^6	$\mathcal{C}_8^3 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 384$
\mathcal{C}_9^7	$\mathcal{C}_8^1 \cup \{(1, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 128$	\mathcal{C}_9^8	$\mathcal{C}_8^1 \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 288$
\mathcal{C}_9^9	$\mathcal{C}_8^1 \cup \{(0, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 32$	\mathcal{C}_9^{10}	$\mathcal{C}_8^3 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 336$
\mathcal{C}_9^{11}	$\mathcal{C}_8^3 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 144$	\mathcal{C}_9^{12}	$\mathcal{C}_8^1 \cup \{(1, 1, 1, 0, 1, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{10}^1	$\mathcal{C}_9^2 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 336$	\mathcal{C}_{10}^2	$\mathcal{C}_9^3 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{10}^3	$\mathcal{C}_9^2 \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{10}^4	$\mathcal{C}_9^3 \cup \{(0, 1, 1, 1, 0, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{10}^5	$\mathcal{C}_9^2 \cup \{(1, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{10}^6	$\mathcal{C}_9^1 \cup \{(1, 1, 1, 0, 1, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{10}^7	$\mathcal{C}_9^6 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 3840$	\mathcal{C}_{10}^8	$\mathcal{C}_9^3 \cup \{(0, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 72$
\mathcal{C}_{10}^9	$\mathcal{C}_9^{10} \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 2688$	\mathcal{C}_{10}^{10}	$\mathcal{C}_9^7 \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{10}^{11}	$\mathcal{C}_9^1 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 144$	\mathcal{C}_{10}^{12}	$\mathcal{C}_9^3 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{10}^{13}	$\mathcal{C}_9^3 \cup \{(1, 1, 1, 0, 1, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{10}^{14}	$\mathcal{C}_9^4 \cup \{(1, 1, 0, 1, 0, 1)\}$	\mathcal{D}_6
\mathcal{C}_{10}^{15}	$\mathcal{C}_9^4 \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 120$	\mathcal{C}_{10}^{16}	$\mathcal{C}_9^6 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{10}^{17}	$\mathcal{C}_9^2 \cup \{(0, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{10}^{18}	$\mathcal{C}_9^{10} \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 1008$
\mathcal{C}_{10}^{19}	$\mathcal{C}_9^1 \cup \{(1, 0, 0, 1, 0, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{10}^{20}	$\mathcal{C}_9^1 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{10}^{21}	$\mathcal{C}_9^1 \cup \{(1, 1, 1, 0, 1, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{10}^{22}	$\mathcal{C}_9^2 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{10}^{23}	$\mathcal{C}_9^3 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 64$	\mathcal{C}_{10}^{24}	$\mathcal{C}_9^5 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 144$

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{11}^1	$\mathcal{C}_{10}^6 \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 144$	\mathcal{C}_{11}^2	$\mathcal{C}_{10}^6 \cup \{(0, 1, 1, 0, 0, 1)\}$	$\mathcal{D}_6 \times \mathcal{C}_2$
\mathcal{C}_{11}^3	$\mathcal{C}_{10}^9 \cup \{(0, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 1152$	\mathcal{C}_{11}^4	$\mathcal{C}_{10}^4 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{11}^5	$\mathcal{C}_{10}^2 \cup \{(0, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{11}^6	$\mathcal{C}_{10}^3 \cup \{(1, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{11}^7	$\mathcal{C}_{10}^9 \cup \{(1, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 1008$	\mathcal{C}_{11}^8	$\mathcal{C}_{10}^{10} \cup \{(0, 0, 1, 1, 1, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{11}^9	$\mathcal{C}_{10}^9 \cup \{(1, 1, 0, 0, 1, 0)\}$	$ \mathcal{O} = 1384$	\mathcal{C}_{11}^{10}	$\mathcal{C}_{10}^{14} \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 120$
\mathcal{C}_{11}^{11}	$\mathcal{C}_{10}^3 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{11}^{12}	$\mathcal{C}_{10}^5 \cup \{(0, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{11}^{13}	$\mathcal{C}_{10}^8 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{11}^{14}	$\mathcal{C}_{10}^3 \cup \{(1, 1, 1, 0, 1, 1)\}$	\mathcal{D}_4
\mathcal{C}_{11}^{15}	$\mathcal{C}_{10}^1 \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 720$	\mathcal{C}_{11}^{16}	$\mathcal{C}_{10}^8 \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{11}^{17}	$\mathcal{C}_{10}^4 \cup \{(1, 0, 0, 1, 1, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{11}^{18}	$\mathcal{C}_{10}^4 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{11}^{19}	$\mathcal{C}_{10}^2 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{11}^{20}	$\mathcal{C}_{10}^{22} \cup \{(0, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 1920$
\mathcal{C}_{11}^{21}	$\mathcal{C}_{10}^6 \cup \{(1, 1, 1, 0, 0, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{11}^{22}	$\mathcal{C}_{10}^8 \cup \{(1, 1, 1, 0, 1, 1)\}$	$\mathcal{D}_6 \times \mathcal{C}_2$
\mathcal{C}_{11}^{23}	$\mathcal{C}_{10}^{19} \cup \{(1, 1, 0, 0, 0, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{11}^{24}	$\mathcal{C}_{10}^6 \cup \{(1, 0, 0, 1, 0, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{11}^{25}	$\mathcal{C}_{10}^6 \cup \{(0, 1, 1, 1, 0, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{11}^{26}	$\mathcal{C}_{10}^1 \cup \{(1, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 1334$
\mathcal{C}_{11}^{27}	$\mathcal{C}_{10}^2 \cup \{(1, 1, 1, 0, 1, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{11}^{28}	$\mathcal{C}_{10}^1 \cup \{(0, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{11}^{29}	$\mathcal{C}_{10}^7 \cup \{(1, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{11}^{30}	$\mathcal{C}_{10}^5 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{11}^{31}	$\mathcal{C}_{10}^7 \cup \{(1, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{11}^{32}	$\mathcal{C}_{10}^4 \cup \{(1, 1, 1, 0, 1, 1)\}$	\mathcal{D}_5
\mathcal{C}_{11}^{33}	$\mathcal{C}_{10}^2 \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{11}^{34}	$\mathcal{C}_{10}^7 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 1920$

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{12}^1	$\mathcal{C}_{11}^6 \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{12}^2	$\mathcal{C}_{11}^{13} \cup \{(1, 1, 1, 0, 1, 1)\}$	\mathcal{D}_4
\mathcal{C}_{12}^3	$\mathcal{C}_{11}^2 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{12}^4	$\mathcal{C}_{11}^{10} \cup \{(1, 1, 0, 0, 1, 0)\}$	\mathcal{D}_5
\mathcal{C}_{12}^5	$\mathcal{C}_{11}^4 \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 128$	\mathcal{C}_{12}^6	$\mathcal{C}_{11}^6 \cup \{(1, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 1152$
\mathcal{C}_{12}^7	$\mathcal{C}_{11}^{34} \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 23040$	\mathcal{C}_{12}^8	$\mathcal{C}_{11}^5 \cup \{(1, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{12}^9	$\mathcal{C}_{11}^{27} \cup \{(0, 1, 1, 1, 0, 0)\}$	\mathcal{D}_6	\mathcal{C}_{12}^{10}	$\mathcal{C}_{11}^4 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{12}^{11}	$\mathcal{C}_{11}^1 \cup \{(0, 1, 1, 0, 0, 1)\}$	$\mathcal{D}_6 \times \mathcal{C}_2$	\mathcal{C}_{12}^{12}	$\mathcal{C}_{11}^7 \cup \{(1, 1, 0, 0, 1, 0)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{12}^{13}	$\mathcal{C}_{11}^3 \cup \{(1, 1, 0, 0, 1, 0)\}$	$ \mathcal{O} = 128$	\mathcal{C}_{12}^{14}	$\mathcal{C}_{11}^{13} \cup \{(1, 1, 1, 0, 0, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{12}^{15}	$\mathcal{C}_{11}^4 \cup \{(0, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{12}^{16}	$\mathcal{C}_{11}^{21} \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{12}^{17}	$\mathcal{C}_{11}^{17} \cup \{(1, 1, 1, 0, 1, 1)\}$	\mathcal{D}_4	\mathcal{C}_{12}^{18}	$\mathcal{C}_{11}^{14} \cup \{(0, 0, 0, 1, 1, 1)\}$	\mathcal{D}_4
\mathcal{C}_{12}^{19}	$\mathcal{C}_{11}^5 \cup \{(0, 0, 0, 1, 1, 1)\}$	\mathcal{D}_4	\mathcal{C}_{12}^{20}	$\mathcal{C}_{11}^{13} \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{12}^{21}	$\mathcal{C}_{11}^{32} \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 120$	\mathcal{C}_{12}^{22}	$\mathcal{C}_{11}^9 \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 1536$
\mathcal{C}_{12}^{23}	$\mathcal{C}_{11}^{13} \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 120$	\mathcal{C}_{12}^{24}	$\mathcal{C}_{11}^{25} \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{12}^{25}	$\mathcal{C}_{11}^9 \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 256$	\mathcal{C}_{12}^{26}	$\mathcal{C}_{11}^{12} \cup \{(1, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 128$
\mathcal{C}_{12}^{27}	$\mathcal{C}_{11}^1 \cup \{(1, 0, 0, 1, 0, 1)\}$	\mathcal{D}_6	\mathcal{C}_{12}^{28}	$\mathcal{C}_{11}^{16} \cup \{(1, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{12}^{29}	$\mathcal{C}_{11}^{20} \cup \{(0, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{12}^{30}	$\mathcal{C}_{11}^4 \cup \{(1, 1, 1, 0, 1, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{12}^{31}	$\mathcal{C}_{11}^{20} \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 3840$	\mathcal{C}_{12}^{32}	$\mathcal{C}_{11}^4 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{12}^{33}	$\mathcal{C}_{11}^6 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{12}^{34}	$\mathcal{C}_{11}^2 \cup \{(0, 1, 1, 1, 0, 0)\}$	\mathcal{D}_6
\mathcal{C}_{12}^{35}	$\mathcal{C}_{11}^8 \cup \{(0, 1, 1, 1, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{12}^{36}	$\mathcal{C}_{11}^{13} \cup \{(0, 0, 1, 1, 1, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{12}^{37}	$\mathcal{C}_{11}^{22} \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 144$	\mathcal{C}_{12}^{38}	$\mathcal{C}_{11}^8 \cup \{(0, 0, 0, 1, 1, 1)\}$	$\mathcal{D}_6 \times \mathcal{C}_2$
\mathcal{C}_{12}^{39}	$\mathcal{C}_{11}^4 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 64$	\mathcal{C}_{12}^{40}	$\mathcal{C}_{11}^4 \cup \{(0, 0, 1, 1, 1, 0)\}$	\mathcal{D}_4
\mathcal{C}_{12}^{41}	$\mathcal{C}_{11}^2 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 240$	\mathcal{C}_{12}^{42}	$\mathcal{C}_{11}^9 \cup \{(0, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{12}^{43}	$\mathcal{C}_{11}^2 \cup \{(1, 0, 0, 1, 0, 1)\}$	\mathcal{D}_4			

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
$\overline{\mathcal{C}}_{13}^1$	$\mathcal{C}_{12}^6 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 1152$	\mathcal{C}_{13}^2	$\mathcal{C}_{12}^2 \cup \{(1, 0, 1, 0, 0, 1)\}$	\mathcal{D}_6
\mathcal{C}_{13}^3	$\mathcal{C}_{12}^{12} \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{13}^4	$\mathcal{C}_{12}^{28} \cup \{(1, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{13}^5	$\mathcal{C}_{12}^2 \cup \{(1, 1, 1, 0, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{13}^6	$\mathcal{C}_{12}^{11} \cup \{(0, 1, 1, 1, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{13}^7	$\mathcal{C}_{12}^{11} \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{13}^8	$\mathcal{C}_{12}^{14} \cup \{(0, 1, 1, 1, 0, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{13}^9	$\mathcal{C}_{12}^1 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{13}^{10}	$\mathcal{C}_{12}^2 \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{13}^{11}	$\mathcal{C}_{12}^{23} \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{13}^{12}	$\mathcal{C}_{12}^{27} \cup \{(0, 1, 1, 1, 0, 1)\}$	\mathcal{D}_6
\mathcal{C}_{13}^{13}	$\mathcal{C}_{12}^3 \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{13}^{14}	$\mathcal{C}_{12}^{15} \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{13}^{15}	$\mathcal{C}_{12}^{12} \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{13}^{16}	$\mathcal{C}_{12}^{10} \cup \{(0, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{13}^{17}	$\mathcal{C}_{12}^{29} \cup \{(0, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{13}^{18}	$\mathcal{C}_{12}^2 \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{13}^{19}	$\mathcal{C}_{12}^{24} \cup \{(1, 0, 0, 1, 0, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{13}^{20}	$\mathcal{C}_{12}^9 \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{13}^{21}	$\mathcal{C}_{12}^{34} \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 144$	\mathcal{C}_{13}^{22}	$\mathcal{C}_{12}^8 \cup \{(0, 0, 0, 1, 1, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{13}^{23}	$\mathcal{C}_{12}^{14} \cup \{(1, 0, 1, 0, 1, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{13}^{24}	$\mathcal{C}_{12}^7 \cup \{(1, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 1152$
\mathcal{C}_{13}^{25}	$\mathcal{C}_{12}^3 \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{13}^{26}	$\mathcal{C}_{12}^{22} \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 128$
\mathcal{C}_{13}^{27}	$\mathcal{C}_{12}^{16} \cup \{(1, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{13}^{28}	$\mathcal{C}_{12}^{27} \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{13}^{29}	$\mathcal{C}_{12}^5 \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{13}^{30}	$\mathcal{C}_{12}^4 \cup \{(0, 1, 1, 1, 0, 0)\}$	\mathcal{D}_4
\mathcal{C}_{13}^{31}	$\mathcal{C}_{12}^{42} \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 2304$	\mathcal{C}_{13}^{32}	$\mathcal{C}_{12}^8 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{13}^{33}	$\mathcal{C}_{12}^1 \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{13}^{34}	$\mathcal{C}_{12}^2 \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{13}^{35}	$\mathcal{C}_{12}^{13} \cup \{(1, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 256$	\mathcal{C}_{13}^{36}	$\mathcal{C}_{12}^3 \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{13}^{37}	$\mathcal{C}_{12}^5 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{13}^{38}	$\mathcal{C}_{12}^2 \cup \{(0, 1, 1, 0, 0, 1)\}$	\mathcal{D}_4
\mathcal{C}_{13}^{39}	$\mathcal{C}_{12}^5 \cup \{(1, 1, 1, 0, 1, 1)\}$	\mathcal{D}_8	\mathcal{C}_{13}^{40}	$\mathcal{C}_{12}^2 \cup \{(0, 1, 0, 0, 1, 1)\}$	$\mathcal{D}_6 \times \mathcal{C}_2$
\mathcal{C}_{13}^{41}	$\mathcal{C}_{12}^4 \cup \{(1, 1, 1, 0, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{13}^{42}	$\mathcal{C}_{12}^{28} \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 36$
\mathcal{C}_{13}^{43}	$\mathcal{C}_{12}^{36} \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 144$	\mathcal{C}_{13}^{44}	$\mathcal{C}_{12}^{10} \cup \{(1, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{13}^{45}	$\mathcal{C}_{12}^9 \cup \{(0, 0, 0, 1, 1, 1)\}$	\mathcal{S}_3	\mathcal{C}_{13}^{46}	$\mathcal{C}_{12}^{13} \cup \{(0, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{13}^{47}	$\mathcal{C}_{12}^2 \cup \{(0, 1, 1, 1, 0, 1)\}$	\mathcal{S}_3			

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{14}^1	$\mathcal{C}_{13}^{16} \cup \{(1, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{14}^2	$\mathcal{C}_{13}^3 \cup \{(0, 1, 1, 0, 0, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{14}^3	$\mathcal{C}_{13}^{22} \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 128$	\mathcal{C}_{14}^4	$\mathcal{C}_{13}^2 \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{14}^5	$\mathcal{C}_{13}^7 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{14}^6	$\mathcal{C}_{13}^6 \cup \{(1, 1, 0, 1, 0, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{14}^7	$\mathcal{C}_{13}^5 \cup \{(0, 1, 1, 1, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{14}^8	$\mathcal{C}_{13}^6 \cup \{(0, 0, 0, 1, 1, 1)\}$	$ \mathcal{O} = 36$
\mathcal{C}_{14}^9	$\mathcal{C}_{13}^4 \cup \{(0, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{14}^{10}	$\mathcal{C}_{13}^9 \cup \{(1, 0, 1, 1, 0, 0)\}$	$\mathcal{D}_6 \times \mathcal{C}_2$
\mathcal{C}_{14}^{11}	$\mathcal{C}_{13}^3 \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{14}^{12}	$\mathcal{C}_{13}^6 \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{14}^{13}	$\mathcal{C}_{13}^8 \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 128$	\mathcal{C}_{14}^{14}	$\mathcal{C}_{13}^5 \cup \{(0, 0, 1, 0, 1, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{14}^{15}	$\mathcal{C}_{13}^2 \cup \{(1, 0, 0, 1, 1, 0)\}$	\mathcal{D}_6	\mathcal{C}_{14}^{16}	$\mathcal{C}_{13}^2 \cup \{(0, 1, 1, 1, 0, 1)\}$	\mathcal{D}_6
\mathcal{C}_{14}^{17}	$\mathcal{C}_{13}^{27} \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 1536$	\mathcal{C}_{14}^{18}	$\mathcal{C}_{13}^{12} \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{14}^{19}	$\mathcal{C}_{13}^2 \cup \{(0, 1, 0, 0, 1, 1)\}$	\mathcal{D}_6	\mathcal{C}_{14}^{20}	$\mathcal{C}_{13}^5 \cup \{(1, 0, 1, 1, 1, 1)\}$	\mathcal{D}_4
\mathcal{C}_{14}^{21}	$\mathcal{C}_{13}^6 \cup \{(1, 0, 0, 1, 0, 1)\}$	\mathcal{D}_4	\mathcal{C}_{14}^{22}	$\mathcal{C}_{13}^{39} \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{14}^{23}	$\mathcal{C}_{13}^{15} \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 2304$	\mathcal{C}_{14}^{24}	$\mathcal{C}_{13}^2 \cup \{(0, 1, 0, 1, 0, 1)\}$	\mathcal{D}_6
\mathcal{C}_{14}^{25}	$\mathcal{C}_{13}^{18} \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 64$	\mathcal{C}_{14}^{26}	$\mathcal{C}_{13}^{12} \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{14}^{27}	$\mathcal{C}_{13}^2 \cup \{(0, 1, 1, 0, 0, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{14}^{28}	$\mathcal{C}_{13}^{11} \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{14}^{29}	$\mathcal{C}_{13}^{42} \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{14}^{30}	$\mathcal{C}_{13}^5 \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{14}^{31}	$\mathcal{C}_{13}^7 \cup \{(1, 0, 0, 1, 0, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{14}^{32}	$\mathcal{C}_{13}^2 \cup \{(1, 1, 1, 0, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{14}^{33}	$\mathcal{C}_{13}^9 \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{14}^{34}	$\mathcal{C}_{13}^{10} \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{14}^{35}	$\mathcal{C}_{13}^4 \cup \{(1, 0, 0, 1, 1, 0)\}$	\mathcal{D}_6	\mathcal{C}_{14}^{36}	$\mathcal{C}_{13}^3 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{14}^{37}	$\mathcal{C}_{13}^6 \cup \{(1, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{14}^{38}	$\mathcal{C}_{13}^2 \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{14}^{39}	$\mathcal{C}_{13}^{26} \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 1536$	\mathcal{C}_{14}^{40}	$\mathcal{C}_{13}^{32} \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{14}^{41}	$\mathcal{C}_{13}^5 \cup \{(0, 1, 0, 0, 1, 1)\}$	\mathcal{D}_4	\mathcal{C}_{14}^{42}	$\mathcal{C}_{13}^8 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 144$
\mathcal{C}_{14}^{43}	$\mathcal{C}_{13}^7 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 1152$	\mathcal{C}_{14}^{44}	$\mathcal{C}_{13}^3 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{14}^{45}	$\mathcal{C}_{13}^{18} \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{14}^{46}	$\mathcal{C}_{13}^{10} \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{14}^{47}	$\mathcal{C}_{13}^{11} \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 576$	\mathcal{C}_{14}^{48}	$\mathcal{C}_{13}^{26} \cup \{(0, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{14}^{49}	$\mathcal{C}_{13}^4 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 36$			

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{15}^1	$\mathcal{C}_{14}^{19} \cup \{(0, 1, 1, 0, 0, 1)\}$	\mathcal{D}_4	\mathcal{C}_{15}^2	$\mathcal{C}_{14}^4 \cup \{(0, 1, 1, 0, 0, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{15}^3	$\mathcal{C}_{14}^7 \cup \{(0, 0, 1, 1, 1, 0)\}$	\mathcal{S}_3	\mathcal{C}_{15}^4	$\mathcal{C}_{14}^7 \cup \{(1, 0, 1, 0, 0, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{15}^5	$\mathcal{C}_{14}^3 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 64$	\mathcal{C}_{15}^6	$\mathcal{C}_{14}^2 \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 128$
\mathcal{C}_{15}^7	$\mathcal{C}_{14}^2 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{15}^8	$\mathcal{C}_{14}^1 \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{15}^9	$\mathcal{C}_{14}^{19} \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{15}^{10}	$\mathcal{C}_{14}^{25} \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{15}^{11}	$\mathcal{C}_{14}^8 \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{15}^{12}	$\mathcal{C}_{14}^5 \cup \{(1, 0, 0, 1, 0, 1)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{15}^{13}	$\mathcal{C}_{14}^1 \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{15}^{14}	$\mathcal{C}_{14}^7 \cup \{(1, 1, 1, 1, 1, 0)\}$	\mathcal{D}_6
\mathcal{C}_{15}^{15}	$\mathcal{C}_{14}^{11} \cup \{(0, 1, 1, 1, 0, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{15}^{16}	$\mathcal{C}_{14}^{29} \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 720$
\mathcal{C}_{15}^{17}	$\mathcal{C}_{14}^{28} \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{15}^{18}	$\mathcal{C}_{14}^4 \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{15}^{19}	$\mathcal{C}_{14}^3 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 128$	\mathcal{C}_{15}^{20}	$\mathcal{C}_{14}^{12} \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{15}^{21}	$\mathcal{C}_{14}^{26} \cup \{(0, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 720$	\mathcal{C}_{15}^{22}	$\mathcal{C}_{14}^2 \cup \{(0, 1, 1, 1, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{15}^{23}	$\mathcal{C}_{14}^{28} \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{15}^{24}	$\mathcal{C}_{14}^{39} \cup \{(0, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 2304$
\mathcal{C}_{15}^{25}	$\mathcal{C}_{14}^2 \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 128$	\mathcal{C}_{15}^{26}	$\mathcal{C}_{14}^7 \cup \{(0, 0, 1, 1, 0, 1)\}$	\mathcal{D}_8
\mathcal{C}_{15}^{27}	$\mathcal{C}_{14}^9 \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{15}^{28}	$\mathcal{C}_{14}^{19} \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{15}^{29}	$\mathcal{C}_{14}^2 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{15}^{30}	$\mathcal{C}_{14}^{20} \cup \{(1, 0, 1, 0, 0, 1)\}$	\mathcal{D}_5
\mathcal{C}_{15}^{31}	$\mathcal{C}_{14}^{47} \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 2688$	\mathcal{C}_{15}^{32}	$\mathcal{C}_{14}^2 \cup \{(0, 1, 0, 1, 1, 0)\}$	\mathcal{D}_4
\mathcal{C}_{15}^{33}	$\mathcal{C}_{14}^5 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{15}^{34}	$\mathcal{C}_{14}^{15} \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 144$
\mathcal{C}_{15}^{35}	$\mathcal{C}_{14}^{12} \cup \{(1, 0, 0, 1, 0, 1)\}$	$ \mathcal{O} = 64$	\mathcal{C}_{15}^{36}	$\mathcal{C}_{14}^7 \cup \{(0, 1, 1, 0, 0, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{15}^{37}	$\mathcal{C}_{14}^8 \cup \{(1, 0, 0, 1, 0, 1)\}$	\mathcal{D}_6	\mathcal{C}_{15}^{38}	$\mathcal{C}_{14}^{15} \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{15}^{39}	$\mathcal{C}_{14}^7 \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{15}^{40}	$\mathcal{C}_{14}^2 \cup \{(0, 0, 1, 1, 1, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{15}^{41}	$\mathcal{C}_{14}^{18} \cup \{(1, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 240$	\mathcal{C}_{15}^{42}	$\mathcal{C}_{14}^4 \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{15}^{43}	$\mathcal{C}_{14}^3 \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{15}^{44}	$\mathcal{C}_{14}^6 \cup \{(0, 0, 0, 1, 1, 1)\}$	$\mathcal{D}_6 \times \mathcal{C}_2$

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{16}^1	$\mathcal{C}_{15}^3 \cup \{(1, 0, 1, 1, 1, 1)\}$	\mathcal{D}_5	\mathcal{C}_{16}^2	$\mathcal{C}_{15}^1 \cup \{(1, 1, 1, 0, 0, 0)\}$	\mathcal{D}_4
\mathcal{C}_{16}^3	$\mathcal{C}_{15}^{25} \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{16}^4	$\mathcal{C}_{15}^{14} \cup \{(0, 1, 1, 0, 0, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{16}^5	$\mathcal{C}_{15}^{12} \cup \{(0, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 128$	\mathcal{C}_{16}^6	$\mathcal{C}_{15}^5 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 768$
\mathcal{C}_{16}^7	$\mathcal{C}_{15}^9 \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 576$	\mathcal{C}_{16}^8	$\mathcal{C}_{15}^{17} \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{16}^9	$\mathcal{C}_{15}^6 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{16}^{10}	$\mathcal{C}_{15}^{21} \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 144$
\mathcal{C}_{16}^{11}	$\mathcal{C}_{15}^7 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{16}^{12}	$\mathcal{C}_{15}^{22} \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 36$
\mathcal{C}_{16}^{13}	$\mathcal{C}_{15}^{15} \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{16}^{14}	$\mathcal{C}_{15}^8 \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{16}^{15}	$\mathcal{C}_{15}^2 \cup \{(1, 0, 0, 1, 1, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{16}^{16}	$\mathcal{C}_{15}^{26} \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{16}^{17}	$\mathcal{C}_{15}^1 \cup \{(0, 1, 1, 1, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{16}^{18}	$\mathcal{C}_{15}^6 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 256$
\mathcal{C}_{16}^{19}	$\mathcal{C}_{15}^{11} \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 576$	\mathcal{C}_{16}^{20}	$\mathcal{C}_{15}^{19} \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 1536$
\mathcal{C}_{16}^{21}	$\mathcal{C}_{15}^{16} \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 11520$	\mathcal{C}_{16}^{22}	$\mathcal{C}_{15}^{31} \cup \{(1, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 2688$
\mathcal{C}_{16}^{23}	$\mathcal{C}_{15}^1 \cup \{(0, 0, 1, 1, 1, 0)\}$	\mathcal{S}_3	\mathcal{C}_{16}^{24}	$\mathcal{C}_{15}^4 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{16}^{25}	$\mathcal{C}_{15}^9 \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{16}^{26}	$\mathcal{C}_{15}^5 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{16}^{27}	$\mathcal{C}_{15}^{13} \cup \{(0, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 720$	\mathcal{C}_{16}^{28}	$\mathcal{C}_{15}^4 \cup \{(1, 0, 0, 1, 1, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{16}^{29}	$\mathcal{C}_{15}^2 \cup \{(1, 1, 0, 1, 1, 1)\}$	$\mathcal{D}_6 \times \mathcal{C}_2$	\mathcal{C}_{16}^{30}	$\mathcal{C}_{15}^1 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{16}^{31}	$\mathcal{C}_{15}^{17} \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 5376$	\mathcal{C}_{16}^{32}	$\mathcal{C}_{15}^1 \cup \{(1, 0, 1, 1, 0, 0)\}$	$-_2c_1 \times \mathcal{C}_2$
\mathcal{C}_{16}^{33}	$\mathcal{C}_{15}^4 \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{16}^{34}	$\mathcal{C}_{15}^9 \cup \{(0, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{16}^{35}	$\mathcal{C}_{15}^{16} \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 720$	\mathcal{C}_{16}^{36}	$\mathcal{C}_{15}^6 \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{16}^{37}	$\mathcal{C}_{15}^2 \cup \{(1, 1, 1, 0, 0, 0)\}$	\mathcal{D}_4	\mathcal{C}_{16}^{38}	$\mathcal{C}_{15}^{18} \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{16}^{39}	$\mathcal{C}_{15}^{31} \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 20160$	\mathcal{C}_{16}^{40}	$\mathcal{C}_{15}^2 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{16}^{41}	$\mathcal{C}_{15}^{12} \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{16}^{42}	$\mathcal{C}_{15}^2 \cup \{(0, 1, 0, 1, 0, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{16}^{43}	$\mathcal{C}_{15}^6 \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{16}^{44}	$\mathcal{C}_{15}^{24} \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 36864$
\mathcal{C}_{16}^{45}	$\mathcal{C}_{15}^{34} \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 576$	\mathcal{C}_{16}^{46}	$\mathcal{C}_{15}^1 \cup \{(1, 0, 1, 0, 1, 0)\}$	\mathcal{S}_3
\mathcal{C}_{16}^{47}	$\mathcal{C}_{15}^6 \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 1024$	\mathcal{C}_{16}^{48}	$\mathcal{C}_{15}^3 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 60$

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
$\overline{\mathcal{C}}_{17}^1$	$\mathcal{C}_{16}^7 \cup \{(0, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 576$	$\overline{\mathcal{C}}_{17}^2$	$\mathcal{C}_{16}^{14} \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 384$
$\overline{\mathcal{C}}_{17}^3$	$\mathcal{C}_{16}^{14} \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 720$	$\overline{\mathcal{C}}_{17}^4$	$\mathcal{C}_{16}^{21} \cup \{(0, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 11520$
$\overline{\mathcal{C}}_{17}^5$	$\mathcal{C}_{16}^{22} \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 40320$	\mathcal{C}_{17}^6	$\mathcal{C}_{16}^2 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{17}^7	$\mathcal{C}_{16}^8 \cup \{(1, 1, 1, 0, 1, 1)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{17}^8	$\mathcal{C}_{16}^1 \cup \{(1, 0, 1, 1, 0, 0)\}$	\mathcal{D}_5
\mathcal{C}_{17}^9	$\mathcal{C}_{16}^2 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 64$	\mathcal{C}_{17}^{10}	$\mathcal{C}_{16}^{17} \cup \{(1, 1, 0, 0, 0, 1)\}$	\mathcal{D}_4
\mathcal{C}_{17}^{11}	$\mathcal{C}_{16}^1 \cup \{(1, 0, 1, 0, 0, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{17}^{12}	$\mathcal{C}_{16}^7 \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 2304$
\mathcal{C}_{17}^{13}	$\mathcal{C}_{16}^9 \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{17}^{14}	$\mathcal{C}_{16}^{22} \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 2688$
\mathcal{C}_{17}^{15}	$\mathcal{C}_{16}^2 \cup \{(1, 0, 1, 1, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{17}^{16}	$\mathcal{C}_{16}^8 \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 2688$
\mathcal{C}_{17}^{17}	$\mathcal{C}_{16}^{17} \cup \{(1, 0, 1, 1, 0, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{17}^{18}	$\mathcal{C}_{16}^7 \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{17}^{19}	$\mathcal{C}_{16}^2 \cup \{(1, 0, 0, 1, 1, 0)\}$	\mathcal{D}_4	\mathcal{C}_{17}^{20}	$\mathcal{C}_{16}^{24} \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{17}^{21}	$\mathcal{C}_{16}^3 \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{17}^{22}	$\mathcal{C}_{16}^3 \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 128$
\mathcal{C}_{17}^{23}	$\mathcal{C}_{16}^7 \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{17}^{24}	$\mathcal{C}_{16}^1 \cup \{(0, 1, 1, 0, 0, 1)\}$	\mathcal{D}_8
\mathcal{C}_{17}^{25}	$\mathcal{C}_{16}^5 \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 769$	\mathcal{C}_{17}^{26}	$\mathcal{C}_{16}^6 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{17}^{27}	$\mathcal{C}_{16}^{39} \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 322560$	\mathcal{C}_{17}^{28}	$\mathcal{C}_{16}^{13} \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{17}^{29}	$\mathcal{C}_{16}^4 \cup \{(0, 0, 1, 0, 1, 1)\}$	\mathcal{D}_6	\mathcal{C}_{17}^{30}	$\mathcal{C}_{16}^{10} \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 288$
\mathcal{C}_{17}^{31}	$\mathcal{C}_{16}^1 \cup \{(0, 0, 1, 0, 1, 1)\}$	\mathcal{S}_3	\mathcal{C}_{17}^{32}	$\mathcal{C}_{16}^2 \cup \{(1, 0, 1, 0, 1, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{17}^{33}	$\mathcal{C}_{16}^{21} \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 720$	\mathcal{C}_{17}^{34}	$\mathcal{C}_{16}^{11} \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 144$
\mathcal{C}_{17}^{35}	$\mathcal{C}_{16}^4 \cup \{(0, 0, 1, 1, 1, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{17}^{36}	$\mathcal{C}_{16}^{15} \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{17}^{37}	$\mathcal{C}_{16}^9 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 128$	\mathcal{C}_{17}^{38}	$\mathcal{C}_{16}^{19} \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 9216$
\mathcal{C}_{17}^{39}	$\mathcal{C}_{16}^{13} \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{17}^{40}	$\mathcal{C}_{16}^3 \cup \{(0, 1, 1, 1, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
$\overline{\mathcal{C}}_{18}^1$	$\mathcal{C}_{17}^{14} \cup \{(1, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 10752$	\mathcal{C}_{18}^2	$\mathcal{C}_{17}^{21} \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 128$
\mathcal{C}_{18}^3	$\mathcal{C}_{17}^{22} \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 64$	\mathcal{C}_{18}^4	$\mathcal{C}_{17}^{35} \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{18}^5	$\mathcal{C}_{17}^{12} \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{18}^6	$\mathcal{C}_{17}^{13} \cup \{(0, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{18}^7	$\mathcal{C}_{17}^{35} \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{18}^8	$\mathcal{C}_{17}^8 \cup \{(0, 0, 1, 0, 1, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{18}^9	$\mathcal{C}_{17}^{13} \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 144$	\mathcal{C}_{18}^{10}	$\mathcal{C}_{17}^8 \cup \{(0, 1, 1, 0, 0, 1)\}$	\mathcal{D}_4
\mathcal{C}_{18}^{11}	$\mathcal{C}_{17}^8 \cup \{(1, 0, 1, 0, 0, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{18}^{12}	$\mathcal{C}_{17}^{13} \cup \{(1, 0, 1, 1, 0, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{18}^{13}	$\mathcal{C}_{17}^9 \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 64$	\mathcal{C}_{18}^{14}	$\mathcal{C}_{17}^6 \cup \{(0, 1, 1, 1, 0, 0)\}$	\mathcal{D}_6
\mathcal{C}_{18}^{15}	$\mathcal{C}_{17}^{26} \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 6144$	\mathcal{C}_{18}^{16}	$\mathcal{C}_{17}^{15} \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{18}^{17}	$\mathcal{C}_{17}^7 \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 64$	\mathcal{C}_{18}^{18}	$\mathcal{C}_{17}^6 \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{18}^{19}	$\mathcal{C}_{17}^7 \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 576$	\mathcal{C}_{18}^{20}	$\mathcal{C}_{17}^6 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{18}^{21}	$\mathcal{C}_{17}^{12} \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 1536$	\mathcal{C}_{18}^{22}	$\mathcal{C}_{17}^{17} \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{18}^{23}	$\mathcal{C}_{17}^6 \cup \{(1, 0, 0, 1, 1, 0)\}$	\mathcal{D}_6	\mathcal{C}_{18}^{24}	$\mathcal{C}_{17}^{11} \cup \{(1, 1, 1, 1, 1, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$
\mathcal{C}_{18}^{25}	$\mathcal{C}_{17}^{11} \cup \{(1, 0, 0, 1, 1, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{18}^{26}	$\mathcal{C}_{17}^{10} \cup \{(1, 0, 1, 0, 1, 0)\}$	\mathcal{D}_5
\mathcal{C}_{18}^{27}	$\mathcal{C}_{17}^7 \cup \{(1, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{18}^{28}	$\mathcal{C}_{17}^{26} \cup \{(1, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 1152$
\mathcal{C}_{18}^{29}	$\mathcal{C}_{17}^{17} \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{18}^{30}	$\mathcal{C}_{17}^9 \cup \{(0, 1, 1, 1, 0, 0)\}$	\mathcal{D}_4
\mathcal{C}_{18}^{31}	$\mathcal{C}_{17}^{16} \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 43008$	\mathcal{C}_{18}^{32}	$\mathcal{C}_{17}^{10} \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{18}^{33}	$\mathcal{C}_{17}^{22} \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 2304$			

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{19}^1	$\mathcal{C}_{18}^2 \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 1152$	\mathcal{C}_{19}^2	$\mathcal{C}_{18}^9 \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 36$
\mathcal{C}_{19}^3	$\mathcal{C}_{18}^7 \cup \{(0, 0, 1, 0, 1, 1)\}$	\mathcal{S}_3	\mathcal{C}_{19}^4	$\mathcal{C}_{18}^4 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{19}^5	$\mathcal{C}_{18}^3 \cup \{(0, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{19}^6	$\mathcal{C}_{18}^{15} \cup \{(1, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 9216$
\mathcal{C}_{19}^7	$\mathcal{C}_{18}^5 \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 144$	\mathcal{C}_{19}^8	$\mathcal{C}_{18}^3 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{19}^9	$\mathcal{C}_{18}^{17} \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{19}^{10}	$\mathcal{C}_{18}^{14} \cup \{(1, 0, 1, 0, 1, 0)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{19}^{11}	$\mathcal{C}_{18}^4 \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{19}^{12}	$\mathcal{C}_{18}^{13} \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{19}^{13}	$\mathcal{C}_{18}^{12} \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{19}^{14}	$\mathcal{C}_{18}^{14} \cup \{(0, 1, 1, 0, 1, 0)\}$	$\mathcal{D}_6 \times \mathcal{C}_2$
\mathcal{C}_{19}^{15}	$\mathcal{C}_{18}^{16} \cup \{(0, 0, 1, 1, 1, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{19}^{16}	$\mathcal{C}_{18}^{10} \cup \{(1, 0, 1, 0, 0, 1)\}$	\mathcal{D}_8
\mathcal{C}_{19}^{17}	$\mathcal{C}_{18}^8 \cup \{(0, 1, 0, 0, 1, 1)\}$	$\mathcal{C}_2 \times \mathcal{C}_2$	\mathcal{C}_{19}^{18}	$\mathcal{C}_{18}^6 \cup \{(0, 1, 1, 1, 0, 0)\}$	\mathcal{D}_6
\mathcal{C}_{19}^{19}	$\mathcal{C}_{18}^5 \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 128$	\mathcal{C}_{19}^{20}	$\mathcal{C}_{18}^2 \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{19}^{21}	$\mathcal{C}_{18}^3 \cup \{(0, 0, 1, 0, 1, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{19}^{22}	$\mathcal{C}_{18}^8 \cup \{(1, 0, 0, 1, 1, 0)\}$	\mathcal{D}_4
\mathcal{C}_{19}^{23}	$\mathcal{C}_{18}^{19} \cup \{(1, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 2304$	\mathcal{C}_{19}^{24}	$\mathcal{C}_{18}^2 \cup \{(0, 1, 0, 1, 1, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{19}^{25}	$\mathcal{C}_{18}^{19} \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 9216$			

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
$\overline{\mathcal{C}}_{20}^1$	$\mathcal{C}_{19}^6 \cup \{(0, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 184320$	\mathcal{C}_{20}^2	$\mathcal{C}_{19}^{11} \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 128$
\mathcal{C}_{20}^3	$\mathcal{C}_{19}^8 \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 1536$	\mathcal{C}_{20}^4	$\mathcal{C}_{19}^3 \cup \{(0, 0, 1, 1, 0, 1)\}$	$ \mathcal{O} = 120$
\mathcal{C}_{20}^5	$\mathcal{C}_{19}^{15} \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{20}^6	$\mathcal{C}_{19}^3 \cup \{(1, 0, 0, 1, 1, 0)\}$	\mathcal{D}_4
\mathcal{C}_{20}^7	$\mathcal{C}_{19}^{10} \cup \{(0, 0, 1, 1, 1, 0)\}$	\mathcal{D}_6	\mathcal{C}_{20}^8	$\mathcal{C}_{19}^8 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{20}^9	$\mathcal{C}_{19}^2 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 144$	\mathcal{C}_{20}^{10}	$\mathcal{C}_{19}^1 \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 23040$
\mathcal{C}_{20}^{11}	$\mathcal{C}_{19}^3 \cup \{(1, 0, 1, 1, 0, 0)\}$	\mathcal{D}_4	\mathcal{C}_{20}^{12}	$\mathcal{C}_{19}^5 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{20}^{13}	$\mathcal{C}_{19}^7 \cup \{(1, 1, 1, 0, 0, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{20}^{14}	$\mathcal{C}_{19}^{13} \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 96$
\mathcal{C}_{20}^{15}	$\mathcal{C}_{19}^9 \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 120$	\mathcal{C}_{20}^{16}	$\mathcal{C}_{19}^{10} \cup \{(1, 0, 0, 1, 1, 0)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{20}^{17}	$\mathcal{C}_{19}^9 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 192$	\mathcal{C}_{20}^{18}	$\mathcal{C}_{19}^5 \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 256$
\mathcal{C}_{20}^{19}	$\mathcal{C}_{19}^9 \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 3072$	\mathcal{C}_{20}^{20}	$\mathcal{C}_{19}^3 \cup \{(1, 0, 1, 1, 1, 1)\}$	\mathcal{D}_6
\mathcal{C}_{20}^{21}	$\mathcal{C}_{19}^2 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{20}^{22}	$\mathcal{C}_{19}^{23} \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 36864$
\mathcal{C}_{20}^{23}	$\mathcal{C}_{19}^1 \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{20}^{24}	$\mathcal{C}_{19}^2 \cup \{(1, 0, 1, 1, 0, 0)\}$	$\mathcal{C}_2 \times \mathcal{C}_2 \times \mathcal{C}_2$

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{21}^1	$\mathcal{C}_{20}^4 \cup \{(1, 0, 1, 1, 0, 0)\}$	\mathcal{D}_5	\mathcal{C}_{21}^2	$\mathcal{C}_{20}^3 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{21}^3	$\mathcal{C}_{20}^6 \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{21}^4	$\mathcal{C}_{20}^6 \cup \{(1, 0, 1, 1, 0, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{21}^5	$\mathcal{C}_{20}^7 \cup \{(1, 0, 1, 1, 0, 0)\}$	$\mathcal{D}_6 \times \mathcal{C}_2$	\mathcal{C}_{21}^6	$\mathcal{C}_{20}^6 \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{21}^7	$\mathcal{C}_{20}^{10} \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 1920$	\mathcal{C}_{21}^8	$\mathcal{C}_{20}^2 \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 32$
\mathcal{C}_{21}^9	$\mathcal{C}_{20}^{17} \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 3072$	\mathcal{C}_{21}^{10}	$\mathcal{C}_{20}^7 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{21}^{11}	$\mathcal{C}_{20}^7 \cup \{(1, 0, 0, 1, 1, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{21}^{12}	$\mathcal{C}_{20}^{15} \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 1920$
\mathcal{C}_{21}^{13}	$\mathcal{C}_{20}^{15} \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 720$	\mathcal{C}_{21}^{14}	$\mathcal{C}_{20}^{12} \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 1008$
\mathcal{C}_{21}^{15}	$\mathcal{C}_{20}^2 \cup \{(0, 0, 1, 0, 1, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{21}^{16}	$\mathcal{C}_{20}^3 \cup \{(0, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 384$

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{22}^1	$\mathcal{C}_{21}^6 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 384$	\mathcal{C}_{22}^2	$\mathcal{C}_{21}^3 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{22}^3	$\mathcal{C}_{21}^2 \cup \{(0, 1, 0, 1, 1, 0)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{22}^4	$\mathcal{C}_{21}^4 \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 144$
\mathcal{C}_{22}^5	$\mathcal{C}_{21}^9 \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 768$	\mathcal{C}_{22}^6	$\mathcal{C}_{21}^9 \cup \{(1, 1, 1, 1, 1, 0)\}$	$ \mathcal{O} = 6144$
\mathcal{C}_{22}^7	$\mathcal{C}_{21}^1 \cup \{(1, 0, 1, 1, 1, 1)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$	\mathcal{C}_{22}^8	$\mathcal{C}_{21}^1 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 120$
\mathcal{C}_{22}^9	$\mathcal{C}_{21}^{14} \cup \{(1, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 2688$	\mathcal{C}_{22}^{10}	$\mathcal{C}_{21}^2 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 3840$
\mathcal{C}_{22}^{11}	$\mathcal{C}_{21}^{12} \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 11520$	\mathcal{C}_{22}^{12}	$\mathcal{C}_{21}^1 \cup \{(1, 0, 0, 1, 1, 0)\}$	$\mathcal{D}_4 \times \mathcal{C}_2$
\mathcal{C}_{22}^{13}	$\mathcal{C}_{21}^5 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 72$	\mathcal{C}_{22}^{14}	$\mathcal{C}_{21}^2 \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 64$
\mathcal{C}_{22}^{15}	$\mathcal{C}_{21}^6 \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 1008$			

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{23}^1	$\mathcal{C}_{22}^6 \cup \{(1, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 21504$	\mathcal{C}_{23}^2	$\mathcal{C}_{22}^3 \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 768$
\mathcal{C}_{23}^3	$\mathcal{C}_{22}^2 \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 32$	\mathcal{C}_{23}^4	$\mathcal{C}_{22}^2 \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 48$
\mathcal{C}_{23}^5	$\mathcal{C}_{22}^5 \cup \{(0, 1, 1, 1, 0, 0)\}$	$ \mathcal{O} = 1152$	\mathcal{C}_{23}^6	$\mathcal{C}_{22}^1 \cup \{(1, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 384$
\mathcal{C}_{23}^7	$\mathcal{C}_{22}^4 \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 48$	\mathcal{C}_{23}^8	$\mathcal{C}_{22}^1 \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 144$
\mathcal{C}_{23}^9	$\mathcal{C}_{22}^3 \cup \{(0, 1, 1, 1, 1, 1)\}$	$ \mathcal{O} = 336$			

\mathcal{K}	CORRESPONDS TO	STABILIZER	\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{24}^1	$\mathcal{C}_{23}^1 \cup \{(0, 0, 1, 1, 0, 1)\}$	$ \mathcal{O} = 516096$	\mathcal{C}_{24}^2	$\mathcal{C}_{23}^7 \cup \{(1, 1, 0, 1, 1, 1)\}$	$ \mathcal{O} = 1152$
\mathcal{C}_{24}^3	$\mathcal{C}_{23}^2 \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 512$	\mathcal{C}_{24}^4	$\mathcal{C}_{23}^4 \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 192$
\mathcal{C}_{24}^5	$\mathcal{C}_{23}^2 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 6144$	\mathcal{C}_{24}^6	$\mathcal{C}_{23}^3 \cup \{(1, 0, 1, 1, 1, 1)\}$	$ \mathcal{O} = 72$
\mathcal{C}_{24}^7	$\mathcal{C}_{23}^3 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 96$	\mathcal{C}_{24}^8	$\mathcal{C}_{23}^1 \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 2688$

\mathcal{K}	CORRESPONDS TO	STABILIZER
\mathcal{C}_{25}^1	$\mathcal{C}_{24}^4 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 720$
\mathcal{C}_{25}^2	$\mathcal{C}_{24}^2 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 144$
\mathcal{C}_{25}^3	$\mathcal{C}_{24}^3 \cup \{(0, 1, 0, 0, 1, 1)\}$	$ \mathcal{O} = 1152$
\mathcal{C}_{25}^4	$\mathcal{C}_{24}^3 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 768$
\mathcal{C}_{25}^5	$\mathcal{C}_{24}^1 \cup \{(0, 1, 1, 0, 0, 1)\}$	$ \mathcal{O} = 64512$
\mathcal{C}_{26}^1	$\mathcal{C}_{25}^2 \cup \{(1, 1, 1, 1, 0, 1)\}$	$ \mathcal{O} = 768$
\mathcal{C}_{26}^2	$\mathcal{C}_{25}^1 \cup \{(1, 0, 1, 1, 0, 0)\}$	$ \mathcal{O} = 720$
\mathcal{C}_{26}^3	$\mathcal{C}_{25}^1 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 11520$
\mathcal{C}_{26}^4	$\mathcal{C}_{25}^4 \cup \{(0, 0, 1, 1, 0, 1)\}$	$ \mathcal{O} = 18432$
\mathcal{C}_{27}^1	$\mathcal{C}_{26}^1 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 1920$
\mathcal{C}_{27}^2	$\mathcal{C}_{26}^1 \cup \{(1, 1, 0, 1, 0, 0)\}$	$ \mathcal{O} = 9216$
\mathcal{C}_{28}^1	$\mathcal{C}_{27}^2 \cup \{(0, 1, 1, 0, 1, 0)\}$	$ \mathcal{O} = 258048$
\mathcal{C}_{28}^2	$\mathcal{C}_{27}^1 \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 9216$
\mathcal{C}_{29}^1	$\mathcal{C}_{28}^1 \cup \{(1, 0, 1, 0, 0, 1)\}$	$ \mathcal{O} = 64512$
\mathcal{C}_{30}^1	$\mathcal{C}_{29}^1 \cup \{(0, 1, 0, 1, 0, 1)\}$	$ \mathcal{O} = 645120$
\mathcal{C}_{31}^1	$\mathcal{C}_{30}^1 \cup \{(1, 1, 0, 0, 0, 1)\}$	$ \mathcal{O} = 9999360$
$\overline{\mathcal{C}}_{32}^1$	$\mathcal{C}_{31}^1 \cup \{(0, 0, 1, 1, 0, 1)\}$	$ \mathcal{O} = 319979520$

All the complete caps of sizes 13, 17, 18 and 20 have projective frame. The 32- complete cap has no projective frame.

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